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Kan, Zhengyan
Loerch, Patrick M
Tsinoremas, Nicholas F

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Leu Lys Glu Asn Thr Lys Glu Ile Val Ala Lys Met Lys Glu Ser
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Gln Glu Lys Glu Tyr Gln Phe Leu Lys Met Thr Ala Val Asn Glu
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Thr Gln Glu Lys Met Cys Glu Ile Glu His Leu Lys Glu Gln Phe
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Arg Leu Thr Gln Ile Leu His Glu Asn Leu Glu Glu Met Arg Ser
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Val Thr Lys Glu Arg Asp Asp Leu Arg Ser Val Glu Glu Thr Leu
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Lys Val Glu Arg Asp Gln Leu Lys Glu Asn Leu Arg Glu Thr Ile
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Thr Arg Asp Leu Glu Lys Gln Glu Glu Leu Lys Ile Val His Met
1715 1720 1725

His Leu Lys Glu His Gln Glu Thr Ile Asp Lys Leu Arg Gly Ile
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Val Ser Glu Lys Thr Asn Glu Ile Ser Asn Met Gln Lys Asp Leu
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Glu His Ser Asn Asp Ala Leu Lys Ala Gln Asp Leu Lys Ile Gln
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Glu Glu Leu Arg Ile Ala His Met His Leu Lys Glu Gln Gln Glu
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Thr Ile Asp Lys Leu Arg Gly Ile Val Ser Glu Lys Thr Asp Lys
1790 1795 1800

Leu Ser Asn Met Gln Lys Asp Leu Glu Asn Ser Asn Ala Lys Leu
1805 1810 1815

Gln Glu Lys Ile Gln Glu Leu Lys Ala Asn Glu His Gln Leu Ile
1820 1825 1830

Thr Leu Lys Lys Asp Val Asn Glu Thr Gln Lys Lys Val Ser Glu
1835 1840 1845

Met Glu Gln Leu Lys Lys Gln Ile Lys Asp Gln Ser Leu Thr Leu
1850 1855 1860

Ser Lys Leu Glu Ile Glu Asn Leu Asn Leu Ala Gln Glu Leu His
1865 1870 1875

Glu Asn Leu Glu Glu Met Lys Ser Val Met Lys Glu Arg Asp Asn
1880 1885 1890

Leu Arg Arg Val Glu Glu Thr Leu Lys Leu Glu Arg Asp Gln Leu
1895 1900 1905

Lys Glu Ser Leu Gln Glu Thr Lys Ala Arg Asp Leu Glu Ile Gln
1910 1915 1920

Gln Glu Leu Lys Thr Ala Arg Met Leu Ser Lys Glu His Lys Glu
1925 1930 1935

Thr Val Asp Lys Leu Arg Glu Lys Ile Ser Glu Lys Thr Ile Gln
1940 1945 1950

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Ile Ser  Asp Ile Gln Lys Asp  Leu Asp Lys Ser Lys  Asp Glu Leu
    1955                 1960                 1965

Gln Lys  Lys Asp Arg Gln Asn  His Gln Val Lys Pro  Glu Lys Arg
    1970                 1975                 1980

Leu Leu  Ser Asp Gly Gln Gln  His Leu Met Glu Ser  Leu Arg Glu
    1985                 1990                 1995

Lys Cys  Ser Arg Ile Lys Glu  Leu Leu Lys Arg Tyr  Ser Glu Met
    2000                 2005                 2010

Asp Asp  His Tyr Glu Cys Leu  Asn Arg Leu Ser Leu  Asp Leu Glu
    2015                 2020                 2025

Lys Glu  Ile Glu Phe His Arg  Ile Met Lys Lys Leu  Lys Tyr Val
    2030                 2035                 2040

Leu Ser  Tyr Val Thr Lys Ile  Lys Glu Glu Gln His  Glu Cys Ile
    2045                 2050                 2055

Asn Lys  Phe Glu Met Asp Phe  Ile Asp Glu Val Glu  Lys Gln Lys
    2060                 2065                 2070

Glu Leu  Leu Ile Lys Ile Gln  His Leu Gln Gln Asp  Cys Asp Val
    2075                 2080                 2085

Pro Ser  Arg Glu Leu Arg Asp  Leu Lys Leu Asn Gln  Asn Met Asp
    2090                 2095                 2100

Leu His  Ile Glu Glu Ile Leu  Lys Asp Phe Ser Glu  Ser Glu Phe
    2105                 2110                 2115

Pro Ser  Ile Lys Thr Glu Phe  Gln Gln Val Leu Ser  Asn Arg Lys
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Glu Met  Thr Gln Phe Leu Glu  Glu Trp Leu Asn Thr  Arg Phe Asp
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Ile Glu  Lys Leu Lys Asn Gly  Ile Gln Lys Glu Asn  Asp Arg Ile
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Glu Asn Ser Leu His Glu Ala Lys Glu Ser Ala Met His Lys Glu
2255 2260 2265

Ser Lys Ile Ile Lys Met Gln Lys Glu Leu Glu Val Thr Asn Asp
2270 2275 2280

Ile Ile Ala Lys Leu Gln Ala Lys Val His Glu Ser Asn Lys Cys
2285 2290 2295

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2300 2305 2310

Ala Leu Gly Ala Lys Pro Tyr Lys Glu Glu Ile Glu Asp Leu Lys
2315 2320 2325

Met Lys Leu Val Lys Ile Asp Leu Glu Lys Met Lys Asn Ala Lys
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2345 2350 2355

Gln Lys Glu Val Ile Arg Leu Leu Arg Glu Asn Leu Arg Arg Ser
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Gln Gln  Ala Gln Asp Thr Ser  Val Ile Ser Glu His  Thr Asp Pro
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Gln Pro  Ser Asn Lys Pro Leu  Thr Cys Gly Gly Gly  Ser Gly Ile
    2390                 2395                 2400

Val Gln  Asn Thr Lys Ala Leu  Ile Leu Lys Ser Glu  His Ile Arg
    2405                 2410                 2415

Leu Glu  Lys Glu Ile Ser Lys  Leu Lys Gln Gln Asn  Glu Gln Leu
    2420                 2425                 2430

Ile Lys  Gln Lys Asn Glu Leu  Leu Ser Asn Asn Gln  His Leu Ser
    2435                 2440                 2445

Asn Glu  Val Lys Thr Trp Lys  Glu Arg Thr Leu Lys  Arg Glu Ala
    2450                 2455                 2460

His Lys  Gln Val Thr Cys Glu  Asn Ser Pro Lys Ser  Pro Lys Val
    2465                 2470                 2475

Thr Gly  Thr Ala Ser Lys Lys  Lys Gln Ile Thr Pro  Ser Gln Cys
    2480                 2485                 2490

Lys Glu  Arg Asn Leu Gln Asp  Pro Val Pro Lys Glu  Ser Pro Lys
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Ser Cys  Phe Phe Asp Ser Arg  Ser Lys Ser Leu Pro  Ser Pro His
    2510                 2515                 2520

Pro Val  Arg Tyr Phe Asp Asn  Ser Ser Leu Gly Leu  Cys Pro Glu
    2525                 2530                 2535

Val Gln  Asn Ala Gly Ala Glu  Ser Val Asp Ser Gln  Pro Gly Pro
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Phe Asp Arg Val Phe His Gly Asn Glu Thr Thr Lys Asn Val Tyr Glu
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Glu Ile Ala Ala Pro Ile Ile Asp Ser Ala Ile Gln Gly Tyr Asn Gly
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Thr Ile Phe Ala Tyr Gly Gln Thr Ala Ser Gly Lys Thr Tyr Thr Met
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Ile Phe Gln Lys Ile Lys Lys Phe Pro Asp Arg Glu Phe Leu Leu Arg
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Val Ser Tyr Met Glu Ile Tyr Asn Glu Thr Ile Thr Asp Leu Leu Cys
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Gly Thr Gln Lys Met Lys Pro Leu Ile Ile Arg Glu Asp Val Asn Arg
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Glu Thr Lys Met Asn Gln Arg Ser Ser Arg Ser His Thr Ile Phe Arg
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Met Ile Leu Glu Ser Arg Glu Lys Gly Glu Pro Ser Asn Cys Glu Gly
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Ser Val Lys Val Ser His Leu Asn Leu Val Asp Leu Ala Gly Ser Glu
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Arg Ala Ala Gln Thr Gly Ala Ala Gly Val Arg Leu Lys Glu Gly Cys
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            260                 265                 270

Ser Asp Gly Gln Val Gly Gly Phe Ile Asn Tyr Arg Asp Ser Lys Leu
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Thr Arg Ile Leu Gln Asn Ser Leu Gly Gly Asn Ala Lys Thr Arg Ile
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Glu Val Ser Thr Asp Glu Ala Leu Leu Lys Arg Tyr Arg Lys Glu Ile
            340                 345                 350

Met Asp Leu Lys Lys Gln Leu Glu Glu Val Ser Leu Glu Thr Arg Ala
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Gln Ala Met Glu Lys Asp Gln Leu Ala Gln Leu Leu Glu Glu Lys Asp
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Leu Leu Gln Lys Val Gln Asn Glu Lys Ile Glu Asn Leu Thr Arg Met
385                 390                 395                 400

Leu Val Thr Ser Ser Ser Leu Thr Leu Gln Gln Glu Leu Lys Ala Lys
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Arg Lys Arg Arg Val Thr Trp Cys Leu Gly Lys Ile Asn Lys Met Lys
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Lys Thr His Lys Leu Ser Ile Asn Leu Leu Arg Glu Ile Asp Glu Ser
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Glu Ile Glu Trp Asn Pro Ala Thr Lys Leu Leu Asn Gln Glu Asn Ile
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Glu Ser Glu Leu Asn Ser Leu Arg Ala Asp Tyr Asp Asn Leu Val Leu
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Asp Tyr Glu Gln Leu Arg Thr Glu Lys Glu Glu Met Glu Leu Lys Leu
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Lys Leu Glu Asn Ile Lys Met Asp Leu Ser Tyr Ser Leu Glu Ser Ile
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Glu Asp Pro Lys Gln Met Lys Gln Thr Leu Phe Asp Ala Glu Thr Val
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Ala Leu Asp Ala Lys Arg Glu Ser Ala Phe Leu Arg Ser Glu Asn Leu
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Glu Asn Asp Ile Gln Leu Tyr Gln Ser Gln Leu Glu Ala Lys Lys Lys
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Met Gln Val Asp Leu Glu Lys Glu Leu Gln Ser Ala Phe Asn Glu Ile
            660                 665                 670

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        675                 680                 685

Cys Asn Leu Glu Leu Glu Gly Lys Ile Thr Asp Leu Gln Lys Glu Leu
    690                 695                 700

Asn Lys Glu Val Glu Glu Asn Glu Ala Leu Arg Glu Glu Val Ile Leu
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Leu Ser Glu Leu Lys Ser Leu Pro Ser Glu Val Glu Arg Leu Arg Lys
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Glu Ile Gln Asp Lys Ser Glu Glu Leu His Ile Ile Thr Ser Glu Lys
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His Met Asp Phe Glu Gln Lys Tyr Lys Met Val Leu Glu Glu Asn Glu
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Thr Ile Phe Ala Tyr Gly Gln Thr Ala Ser Gly Lys Thr Tyr Thr Met
85 90 95

Met Gly Ser Glu Asp His Leu Gly Val Ile Pro Arg Ala Ile His Asp
100 105 110

Ile Phe Gln Lys Ile Lys Lys Phe Pro Asp Arg Glu Phe Leu Leu Arg
115 120 125

Val Ser Tyr Met Glu Ile Tyr Asn Glu Thr Ile Thr Asp Leu Leu Cys
130 135 140

Gly Thr Gln Lys Met Lys Pro Leu Ile Ile Arg Glu Asp Val Asn Arg
145 150 155 160

Asn Val Tyr Val Ala Asp Leu Thr Glu Glu Val Val Tyr Thr Ser Glu
165 170 175

Met Ala Leu Lys Trp Ile Thr Lys Gly Glu Lys Ser Arg His Tyr Gly
180 185 190

Glu Thr Lys Met Asn Gln Arg Ser Ser Arg Ser His Thr Ile Phe Arg
195 200 205

Met Ile Leu Glu Ser Arg Glu Lys Gly Glu Pro Ser Asn Cys Glu Gly
210 215 220

Ser Val Lys Val Ser His Leu Asn Leu Val Asp Leu Ala Gly Ser Glu
225 230 235 240

Arg Ala Ala Gln Thr Gly Ala Ala Gly Val Arg Leu Lys Glu Gly Cys
245 250 255

Asn Ile Asn Arg Ser Leu Phe Ile Leu Gly Gln Val Ile Lys Lys Leu
260 265 270

Ser Asp Gly Gln Val Gly Gly Phe Ile Asn Tyr Arg Asp Ser Lys Leu
275 280 285

Thr Arg Ile Leu Gln Asn Ser Leu Gly Gly Asn Ala Lys Thr Arg Ile
290 295 300

Ile Cys Thr Ile Thr Pro Val Ser Phe Asp Glu Thr Leu Thr Ala Leu
305 310 315 320

Gln Phe Ala Ser Thr Ala Lys Tyr Met Lys Asn Thr Pro Tyr Val Asn
325 330 335

Glu Val Ser Thr Asp Glu Ala Leu Leu Lys Arg Tyr Arg Lys Glu Ile
340 345 350

Met Asp Leu Lys Lys Gln Leu Glu Glu Val Ser Leu Glu Thr Arg Ala
355 360 365

Gln Ala Met Glu Lys Asp Gln Leu Ala Gln Leu Leu Glu Glu Lys Asp
370 375 380

Leu Leu Gln Lys Val Gln Asn Glu Lys Ile Glu Asn Leu Thr Arg Met
385 390 395 400

Leu Val Thr Ser Ser Ser Leu Thr Leu Gln Gln Glu Leu Lys Ala Lys
405 410 415

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Arg Lys Arg Arg Val Thr Trp Cys Leu Gly Lys Ile Asn Lys Met Lys
            420                 425                 430

Asn Ser Asn Tyr Ala Asp Gln Phe Asn Ile Pro Thr Asn Ile Thr Thr
        435                 440                 445

Lys Thr His Lys Leu Ser Ile Asn Leu Leu Arg Glu Ile Asp Glu Ser
    450                 455                 460

Val Cys Ser Glu Ser Asp Val Phe Ser Asn Thr Leu Asp Thr Leu Ser
465                 470                 475                 480

Glu Ile Glu Trp Asn Pro Ala Thr Lys Leu Leu Asn Gln Glu Asn Ile
                485                 490                 495

Glu Ser Glu Leu Asn Ser Leu Arg Ala Asp Tyr Asp Asn Leu Val Leu
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Asp Tyr Glu Gln Leu Arg Thr Glu Lys Glu Glu Met Glu Leu Lys Leu
        515                 520                 525

Lys Glu Lys Asn Asp Leu Asp Glu Phe Glu Ala Leu Glu Arg Lys Thr
    530                 535                 540

Lys Lys Asp Gln Glu Glu Ser Ile Glu Asp Pro Lys Gln Met Lys Gln
545                 550                 555                 560

Thr Leu Phe Asp Ala Glu Thr Val Ala Leu Asp Ala Lys Arg Glu Ser
                565                 570                 575

Ala Phe Leu Arg Ser Glu Asn Leu Glu Leu Lys Glu Lys Met Lys Glu
            580                 585                 590

Leu Ala Thr Thr Tyr Lys Gln Met Glu Asn Asp Ile Gln Leu Tyr Gln
        595                 600                 605

Ser Gln Leu Glu Ala Lys Lys Lys Met Gln Val Asp Leu Glu Lys Glu
    610                 615                 620

Leu Gln Ser Ala Phe Asn Glu Ile Thr Lys Leu Thr Ser Leu Ile Asp
625                 630                 635                 640
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Gly Lys Val Pro Lys Asp Leu Leu Cys Asn Leu Glu Leu Glu Gly Lys
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Ile Thr Asp Leu Gln Lys Glu Leu Asn Lys Glu Val Glu Glu Asn Glu
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Ala Leu Arg Glu Glu Val Ile Leu Leu Ser Glu Leu Lys Ser Leu Pro
        675                 680                 685

Ser Glu Val Glu Arg Leu Arg Lys Glu Ile Gln Asp Lys Ser Glu Glu
    690                 695                 700

Leu His Ile Ile Thr Ser Glu Lys Asp Lys Leu Phe Ser Glu Val Val
705                 710                 715                 720

His Lys Glu Ser Arg Val Gln Gly Leu Leu Glu Glu Ile Gly Lys Thr
                725                 730                 735

Lys Asp Asp Leu Ala Thr Thr Gln Ser Asn Tyr Lys Ser Thr Asp Gln
            740                 745                 750

Glu Phe Gln Asn Phe Lys Thr Leu His Met Asp Phe Glu Gln Lys Tyr
        755                 760                 765

Lys Met Val Leu Glu Glu Asn Glu Arg Met Asn Gln Glu Ile Val Asn
    770                 775                 780

Leu Ser Lys Glu Ala Gln Lys Phe Asp Ser Ser Leu Gly Ala Leu Lys
785                 790                 795                 800

Thr Glu Leu Ser Tyr Lys Thr Gln Glu Leu Gln Glu Lys Thr Arg Glu
                805                 810                 815

Val Gln Glu Arg Leu Asn Glu Met Glu Gln Leu Lys Glu Gln Leu Glu
            820                 825                 830

Asn Arg Asp Ser Pro Leu Gln Thr Val Glu Arg Glu Lys Thr Leu Ile
        835                 840                 845

Thr Glu Lys Leu Gln Gln Thr Leu Glu Glu Val Lys Thr Leu Thr Gln
    850                 855                 860
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Glu Lys Asp Asp Leu Lys Gln Leu Gln Glu Ser Leu Gln Ile Glu Arg
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Asp Gln Leu Lys Ser Asp Ile His Asp Thr Val Asn Met Asn Ile Asp
885 890 895

Thr Gln Glu Gln Leu Arg Asn Ala Leu Glu Ser Leu Lys Gln His Gln
900 905 910

Glu Thr Ile Asn Thr Leu Lys Ser Lys Ile Ser Glu Glu Val Ser Arg
915 920 925

Asn Leu His Met Glu Glu Asn Thr Gly Glu Thr Lys Asp Glu Phe Gln
930 935 940

Gln Lys Met Val Gly Ile Asp Lys Lys Gln Asp Leu Glu Ala Lys Asn
945 950 955 960

Thr Gln Thr Leu Thr Ala Asp Val Lys Asp Asn Glu Ile Ile Glu Gln
965 970 975

Gln Arg Lys Ile Phe Ser Leu Ile Gln Glu Lys Asn Glu Leu Gln Gln
980 985 990

Met Leu Glu Ser Val Ile Ala Glu Lys Glu Gln Leu Lys Thr Asp Leu
995 1000 1005

Lys Glu Asn Ile Glu Met Thr Ile Glu Asn Gln Glu Glu Leu Arg
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Leu Leu Gly Asp Glu Leu Lys Lys Gln Gln Glu Ile Val Ala Gln
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Glu Lys Asn His Ala Ile Lys Lys Glu Gly Glu Leu Ser Arg Thr
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Cys Asp Arg Leu Ala Glu Val Glu Glu Lys Leu Lys Glu Lys Ser
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Gln Gln Leu Gln Glu Lys Gln Gln Gln Leu Leu Asn Val Gln Glu
1070 1075 1080

Glu Met Ser Glu Met Gln Lys Lys Ile Asn Glu Ile Glu Asn Leu
1085 1090 1095

Lys Asn Glu Leu Lys Asn Lys Glu Leu Thr Leu Glu His Met Glu
1100 1105 1110

Thr Glu Arg Leu Glu Leu Ala Gln Lys Leu Asn Glu Asn Tyr Glu
1115 1120 1125

Glu Val Lys Ser Ile Thr Lys Glu Arg Lys Val Leu Lys Glu Leu
1130 1135 1140

Gln Lys Ser Phe Glu Thr Glu Arg Asp His Leu Arg Gly Tyr Ile
1145 1150 1155

Arg Glu Ile Glu Ala Thr Gly Leu Gln Thr Lys Glu Glu Leu Lys
1160 1165 1170

Ile Ala His Ile His Leu Lys Glu His Gln Glu Thr Ile Asp Glu
1175 1180 1185

Leu Arg Arg Ser Val Ser Glu Lys Thr Ala Gln Ile Ile Asn Thr
1190 1195 1200

Gln Asp Leu Glu Lys Ser His Thr Lys Leu Gln Glu Glu Ile Pro
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Val Leu His Glu Glu Gln Glu Leu Leu Pro Asn Val Lys Lys Val
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Ser Glu Thr Gln Glu Thr Met Asn Glu Leu Glu Leu Leu Thr Glu
1235 1240 1245

Gln Ser Thr Thr Lys Asp Ser Thr Thr Leu Ala Arg Ile Glu Met
1250 1255 1260

Glu Arg Leu Arg Leu Asn Glu Lys Phe Gln Glu Ser Gln Glu Glu
1265 1270 1275

Ile Lys Ser Leu Thr Lys Glu Arg Asp Asn Leu Lys Thr Ile Lys
1280 1285 1290

Glu Ala Leu Glu Val Lys His Asp Gln Leu Lys Glu His Ile Arg
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Glu Thr Leu Ala Lys Ile Gln Glu Ser Gln Ser Lys Gln Glu Gln
1310 1315 1320

Ser Leu Asn Met Lys Glu Lys Asp Asn Glu Thr Thr Lys Ile Val
1325 1330 1335

Ser Glu Met Glu Gln Phe Lys Pro Lys Asp Ser Ala Leu Leu Arg
1340 1345 1350

Ile Glu Ile Glu Met Leu Gly Leu Ser Lys Arg Leu Gln Glu Ser
1355 1360 1365

His Asp Glu Met Lys Ser Val Ala Lys Glu Lys Asp Asp Leu Gln
1370 1375 1380

Arg Leu Gln Glu Val Leu Gln Ser Glu Ser Asp Gln Leu Lys Glu
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Asn Ile Lys Glu Ile Val Ala Lys His Leu Glu Thr Glu Glu Glu
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Asn Glu Leu Arg Val Asn Leu Ser Glu Lys Glu Thr Glu Ile Ser
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Thr Ile Gln Lys Gln Leu Glu Ala Ile Asn Asp Lys Leu Gln Asn
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Lys Ile Gln Glu Ile Tyr Glu Lys Glu Glu Gln Leu Asn Ile Lys
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Gln Ile Ser Glu Val Gln Glu Asn Val Asn Glu Leu Lys Gln Phe
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Cys Glu Ile Glu His Leu Lys Glu Gln Phe Glu Thr Gln Lys Leu
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Asn Leu Glu Asn Ile Glu Thr Glu Asn Ile Arg Leu Thr Gln Ile
1595 1600 1605

Leu His Glu Asn Leu Glu Glu Met Arg Ser Val Thr Lys Glu Arg
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Asp Asp Leu Arg Ser Val Glu Glu Thr Leu Lys Val Glu Arg Asp
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Gln Leu Lys Glu Asn Leu Arg Glu Thr Ile Thr Arg Asp Leu Glu
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1670 1675 1680

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1700 1705 1710

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Arg Gly  Ile Val Ser Glu Lys  Thr Asp Lys Leu Ser  Asn Met Gln
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Lys Asp  Leu Glu Asn Ser Asn  Ala Lys Leu Gln Glu  Lys Ile Gln
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Glu Leu  Lys Ala Asn Glu His  Gln Leu Ile Thr Leu  Lys Lys Asp
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Val Asn  Glu Thr Gln Lys Lys  Val Ser Glu Met Glu  Gln Leu Lys
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Lys Gln  Ile Lys Asp Gln Ser  Leu Thr Leu Ser Lys  Leu Glu Ile
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Glu Asn  Leu Asn Leu Ala Gln  Glu Leu His Glu Asn  Leu Glu Glu
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Met Lys  Ser Val Met Lys Glu  Arg Asp Asn Leu Arg  Arg Val Glu
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Glu Thr  Leu Lys Leu Glu Arg  Asp Gln Leu Lys Glu  Ser Leu Gln
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Glu Thr  Lys Ala Arg Asp Leu  Glu Ile Gln Gln Glu  Leu Lys Thr
    1850                 1855                 1860

Ala Arg  Met Leu Ser Lys Glu  His Lys Glu Thr Val  Asp Lys Leu
    1865                 1870                 1875

Arg Glu  Lys Ile Ser Glu Lys  Thr Ile Gln Ile Ser  Asp Ile Gln
    1880                 1885                 1890

Lys Asp  Leu Asp Lys Ser Lys  Asp Glu Leu Gln Lys  Lys Asp Arg
    1895                 1900                 1905

Gln Asn  His Gln Val Lys Pro  Glu Lys Arg Leu Leu  Ser Asp Gly
    1910                 1915                 1920
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Gln Gln His Leu Met Glu Ser Leu Arg Glu Lys Cys Ser Arg Ile
1925 1930 1935

Lys Glu Leu Leu Lys Arg Tyr Ser Glu Met Asp Asp His Tyr Glu
1940 1945 1950

Cys Leu Asn Arg Leu Ser Leu Asp Leu Glu Lys Glu Ile Glu Phe
1955 1960 1965

His Arg Ile Met Lys Lys Leu Lys Tyr Val Leu Ser Tyr Val Thr
1970 1975 1980

Lys Ile Lys Glu Glu Gln His Glu Cys Ile Asn Lys Phe Glu Met
1985 1990 1995

Asp Phe Ile Asp Glu Val Glu Lys Gln Lys Glu Leu Leu Ile Lys
2000 2005 2010

Ile Gln His Leu Gln Gln Asp Cys Asp Val Pro Ser Arg Glu Leu
2015 2020 2025

Arg Asp Leu Lys Leu Asn Gln Asn Met Asp Leu His Ile Glu Glu
2030 2035 2040

Ile Leu Lys Asp Phe Ser Glu Ser Glu Phe Pro Ser Ile Lys Thr
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Glu Phe Gln Gln Val Leu Ser Asn Arg Lys Glu Met Thr Gln Phe
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Leu Glu Glu Trp Leu Asn Thr Arg Phe Asp Ile Glu Lys Leu Lys
2075 2080 2085

Asn Gly Ile Gln Lys Glu Asn Asp Arg Ile Cys Gln Val Asn Asn
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Phe Phe Asn Asn Arg Ile Ile Ala Ile Met Asn Glu Ser Thr Glu
2105 2110 2115

Phe Glu Glu Arg Ser Ala Thr Ile Ser Lys Glu Trp Glu Gln Asp
2120 2125 2130

Leu Lys Ser Leu Lys Glu Lys Asn Glu Lys Leu Phe Lys Asn Tyr
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Met Gln Lys Glu Leu Glu Val Thr Asn Asp Ile Ile Ala Lys Leu
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Gln Ala Lys Val His Glu Ser Asn Lys Cys Leu Glu Lys Thr Lys
2225 2230 2235

Glu Thr Ile Gln Val Leu Gln Asp Lys Val Ala Leu Gly Ala Lys
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Pro Tyr Lys Glu Glu Ile Glu Asp Leu Lys Met Lys Leu Val Lys
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Ile Asp Leu Glu Lys Met Lys Asn Ala Lys Glu Phe Glu Lys Glu
2270 2275 2280

Ile Ser Ala Thr Lys Ala Thr Val Glu Tyr Gln Lys Glu Val Ile
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Pro Leu Thr Cys Gly Gly Gly Ser Gly Ile Val Gln Asn Thr Lys
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Ser Lys Leu Lys Gln Gln Asn Glu Gln Leu Ile Lys Gln Lys Asn
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Trp Lys Glu Arg Thr Leu Lys Arg Glu Ala His Lys Gln Val Thr
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Cys Glu Asn Ser Pro Lys Ser Pro Lys Val Thr Gly Thr Ala Ser
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Lys Lys Lys Gln Ile Thr Pro Ser Gln Cys Lys Glu Arg Asn Leu
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Gln Asp Pro Val Pro Lys Glu Ser Pro Lys Ser Cys Phe Phe Asp
2435 2440 2445

Ser Arg Ser Lys Ser Leu Pro Ser Pro His Pro Val Arg Tyr Phe
2450 2455 2460

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tgcaagtgtg agatggataa cttccagttg actaagaaac ttcatgaaag ccttgaagaa 180

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Lys Gln Phe Glu Pro Asn Tyr Leu Cys Lys Cys Glu Met Asp Asn Phe
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Gln Leu Thr Lys Lys Leu His Glu Ser Leu Glu Glu Ile Arg Ile Val
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